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SCHWEGMAN, LUNDBERG & WOESSNER/BSC-CRM
PO BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

GETZOW, SCOTT M

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/756,897
Filing Date: January 14, 2004
Appellant(s): GILKERSON ET AL.

Timothy Christman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/11/11 appealing from the Office action mailed 7/26/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 25-33,36-45 are currently pending and finally rejected. No other claims are pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,776,167	Levine et al	7-1998
5,591,214	Lu	1-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 25-33,36 are rejected under 35 U.S.C. 102(b) as being anticipated by Levine et al (5,776,167).

Re claim 25, figure 1 of Levine shows a first sensing input 24 and a second sensing input 14. A memory circuit is considered to be inherent in the device of Levine, since without a memory to hold operational instructions, the device would not work. Further, figure 1 shows therapy circuits to provide electrical stimulation, 18 and 26. Figure 3 of Levine teaches an adjustable blanking interval 57, followed by a number of relative blanking intervals, 59, 61. The blanking intervals accomplish the intended uses of the first 'wherein' clause of claim 25. The second 'wherein' clause of claim 25 includes a noise window which is derived from a preset refractory period and an

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adjustable blanking interval. In Levine, the maximum or total blanking interval is considered to correspond to applicant's preset refractory period, and Levine's absolute blanking interval is considered to correspond to applicant's adjustable blanking interval, and Levine's relative blanking interval is considered to correspond to applicant's noise window. Re the third 'wherein' clause of claim 25, column 7, lines 29+, and column 8, lines 9+, of Levine teaches that signals sensed during the relative blanking interval are presumed to be crosstalk. Further, as taught in column 2, lines 35+ of Levine, to alleviate the effects of crosstalk, the sensing circuitry is made inactive, and thus the operation of the pacemaker will be unaffected by crosstalk.

Re claims 26-32 column 7, lines 7-28 of Levine teaches atrial channel blanking and ventricular channel blanking. Further, the absolute blanking period of Levin can be triggered by either a paced or intrinsic event, in either chamber. Also, the intended uses set forth in the claims are the normal operations of using a blanking interval to prevent crosstalk.

Re claim 33, column 8, lines 52+ of Levine teaches that the maximum blanking interval can be adjusted to any suitable length. Thus, in order to adjust such blanking interval, an external programmer must be used to do the adjusting, as is well known in the art. Thus, the external interface is simply an external programmer. Further, claim 33 states in a 'wherein' clause that the implantable circuitry has a memory that can store the adjustable blanking interval. As mentioned above, a memory to store operation data, such as time intervals, AV delays, etc must be inherent in the device of Levine for it to operate. The memory circuit in the implanted unit of Levine is

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considered to be able to store any type of data, including blanking intervals, and not just AV delays, etc. Further, column 10, lines 12+ of Levine teaches that the device can be programmed, specifically to programmably shorten the length of the absolute blanking interval. Thus, the device of Levine is capable of receiving programming instructions, and storing an absolute blanking interval, which is considered to be analogous to the adjustable blanking interval of applicant.

Re claim 36, figure 1 of Levine is considered to show two leads 14 and 24.

Claims 37-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levine et al (5,776,167).

The method steps of the above claims are considered to be the obvious and normal usage of the Levine device. Further, as mentioned above, a memory which can store instructions is considered to be inherent in the device of Levine. Still further, claim 37 recites method steps that are considered to be able to be programmed into a implantable pacemaker to make it operate as desired. That is, for the implanted device to perform as desired, it must be programmed with instructions that control its operation. Thus, one of ordinary skill in the art would also consider that including all of the instructions of claim 37 into a memory circuit would be well known to do in the art, and would be necessary in order to initially program and subsequently adjust the instructions as needed by the patient. Re the dependent claims 38-45, see comments above re the Levin patent.

Claims 25-33,36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu (5,591,214) in view of Levine et al (5,776,167).

Re claim 25, figure 5 of Lu teaches, among other things, the ability to sense and stimulate both the atrium and ventricle. Figure 5 of Lu teaches the use of a programmer, and a controller where the programmed instructions are stored. Column 1 of Lu clearly teaches the various blanking periods that are used, in order to reduce the effects of crosstalk. Column 4, lines 17+ of Lu teach that the various blanking periods can be modified in a physician's office via a programmer which downloads programming parameters into the implanted pacemaker. Lu teaches programming a blanking interval, but does not explicitly recite the use of a noise window interval. However, as mentioned above, the patent to Levine teaches the use of a relative blanking interval, which is considered to be applicant's noise window. To use such a interval with the device of Lu would be obvious since such would be a combination of well known prior art elements, that are combined in a predictable manner, and that by using a noise window, noise that occurs after the adjustable blanking interval can still be blanked, and therefore not have an effect upon the functioning of the implanted device, thus eliminating unwanted crosstalk. Re the dependent claims, see the discussion above re Levine. Also, Lu is considered to encompass the subject matter of the dependent claims as described, see for example figure 1a, which teaches blanking on either channel, and for paced and sensed events, and figure 1 which shows leads and a programmer to program the device with various timing intervals, including an adjustable blanking interval.

Re claim 37, Lu explicitly shows the use of a programmer which programs various blanking periods, see column 4, lines 17+. Thus Lu is considered to explicitly teach the ability to store blanking periods in an implanted device. As discussed above, to use a noise window, shown as a relative blanking interval in Levine, would have been obvious since it would be a combination of known elements yielding a predictable result, and that using a noise window would further eliminate crosstalk. Further, as is well known, implanted devices store instructions in a memory so that such instructions allow for the proper functioning of the device.

(10) Response to Argument

Applicant argues that no adjustable blanking interval is taught in Levine. However, as mentioned above, Levine teaches an absolute blanking interval, which is considered to be the adjustable blanking interval of applicant's claims. Further, applicant argues that such absolute blanking interval of Levin is not *adjustable*. However, column 8, lines 57+ of Levine teach that the maximum blanking interval, which is the combination of the absolute blanking interval and the relative blanking interval, can be adjusted to any suitable length. Thus, it could be the case that the relative blanking interval is held the same, but the physician adjusts the absolute blanking interval instead, resulting in an adjusted maximum blanking interval. Further, column 10, lines 12+ of Levine teach that the physician can programmably shorten the absolute blanking interval. Thus, the absolute blanking interval of Levine can be

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adjusted. Applicant further argues that Levine does not teach a noise window interval which is derived from the difference between a preset refractory period and the adjustable blanking interval. However, if one were to subtract the absolute blanking interval of Levine, from the total blanking interval of Levine, one is left with the relative blanking interval, which is considered to be applicant's noise window interval. Further, applicant argues that Levine fails to mention inhibiting ventricular sensing more generally in response to an atrial event, such as a pacing event or an intrinsic event. However, claims 25 and 37 merely set forth an atrial or ventricular event. The event could be a stimulation pulse, and is not limited to an intrinsic contraction. Further, Lu clearly teaches that blanking can be initiated after a paced or sensed event, see figure 1a of Lu, for example. Figure 1a of Lu is designated as 'prior art' and thus the skilled artisan would consider that an 'event' can be a pace or a sense, and consider such inherent in the functioning of the Levine device as well.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Scott Getzow/

Primary Examiner, Art Unit 3762

Conferees:

/Niketa I. Patel/

Supervisory Patent Examiner, Art Unit 3762

/Michael Phillips/

RQAS